

Claims:

1. A physiological food salt product containing an alkaline earth metal component, **characterized** in that said product contains one or more hydrate forms of magnesium ammonium chloride and/or calcium ammonium chloride having the general formula  $MNH_4Cl_3 \times XH_2O$ , in which formula M is Mg or Ca and X is the number of molecules of water of crystallization.
2. The product according to claim 1, **characterized** in that X is within the range from 4 to 6.
- ~~3. The product according to claim 1 or 2, **characterized** in that the magnesium ammonium chloride and/or the calcium ammonium chloride is in a complex form.~~
4. The product according to claim 3, **characterized** in that the complexing compound is a hydroxy-carboxylic acid and/or its salt, or an amino acid and/or its derivative.
- ~~5. The product according to claim 1 or 2, **characterized** in that the general anhydrous formula of the salt contained in the product is  $aMg \times bCa \times NH_4Cl_3$ , in which  $a + b = 1$ , and a and b are greater than 0, and in which part of the ammonium can be replaced with potassium.~~
6. The product according to claim 1 or 2, **characterized** in that the general anhydrous formula of the salt contained in the product is in the type  $MgNH_4Cl_3 \times eCaCl_2$ , in which e is preferably not greater than 0.2 and in which part of the ammonium can be replaced with potassium.
7. The product according to claim 1 or 2, **characterized** in that the general anhydrous formula of the salt contained in the product is  $Mg \times cNH_4 \times dK \times Cl_3$ , in which  $c + d = 1$ , and c and d are greater than 0, preferably so that  $c \geq 0.5$ .
8. The product according to any of the preceding claims, **characterized** in that it contains sodium chloride and/or potassium chloride.

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9. The product according to claim 8, **characterized** in that the content of magnesium ammonium chloride in the mixture is at least 2.5 wt-%, preferably at least 3.0 wt-%, calculated as magnesium.

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10. The product according to any of the preceding claims, **characterized** in that it contains materials which are advantageous to vital functions, such as micronutrients, vitamins, flavonoids, steroids, or the like.

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11. The product according to any of the preceding claims, **characterized** in that it contains as additives affecting primarily the taste of the product carbohydrates or their polymeric forms, spices, herbs, acidity regulators, glutamates, proteins, protein hydrolysates, or the like.

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12. A nutrient substance, a semi-finished product, a processed food product, a food portion, or the like, **characterized** in that a food salt product according to any of the preceding claims has been used, in solid form or in a solution, in its processing and/or preservation.

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13. A method for preparing a food salt product containing an alkaline earth metal component, **characterized** in that an alkaline earth metal chloride and ammonium chloride are brought together in a solution form, wherein a precipitate is formed which contains one or several hydrate forms of an alkaline earth metal ammonium chloride, having the general formula of  $MNH_4Cl_3 \times XH_2O$ , in which formula M is Mg or Ca and X is the number of molecules of water of crystallization, and the obtained precipitate is separated from the mother liquor.

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14. The method according to claim 13, **characterized** in that the precipitation is performed in a continuous process, returning the mother liquor after the separation of the precipitate to the stage in which it is supplemented with the alkaline earth metal chloride and ammonium chloride.

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15. The method according to claim 13, **characterized** in that the solution form contains both magnesium chloride and calcium chloride to include calcium in the product.

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16. The method according to claim 13, characterized in that the solution form contains a chloride of potassium, such as KCl, or potassium carnallite  $MgKCl_3$  which also constitutes the alkaline earth metal chloride component.

10 ~~17. The method according to any of the preceding claims 13 to 16, characterized in that the pH of the mother liquor is adjusted by means of a hydroxide, particularly potassium or ammonium hydroxide, particularly to adjust the crystallization of free ammonium chloride.~~

18. A method for preparing a physiological food salt product containing an alkaline earth metal component, **characterized** in that an alkaline earth metal chloride and ammonium chloride are brought together in a solid state possibly together with sodium chloride and/or potassium chloride, and the mixture is agitated, ground, or pulverized *e.g.* in a ball mill or the like, and the obtained product is possibly granulated.

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